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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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805 Third Avenue
New York, NY 10022

EXAMINER

LEWIS, ADAM M

ART UNIT	PAPER NUMBER
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2174

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DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/677,446

Applicant(s)

SIVAN ET AL.

Examiner

Adam M. Lewis

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 12-21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Edgar et al. ("Edgar", US# 5,537,530).

As per independent claim 1, Edgar teaches a method for organizing a sequence of video frames, comprising

selecting one of the frames in the sequence as an initial frame in a first portion of a segment of the sequence (Edgar, col. 4, lines 43-49);

adding further frames in the sequence, subsequent the initial frame, to the first portion, while a measure of similarity of each of the added frames to the frames already in the first portion is within a first predefined bound (Edgar, col. 4, lines 57-61);

selecting one of the added frames in the first portion to be a representative frame for the segment (Edgar, col. 4, lines 57-61); and

generating a second portion of the segment by adding still further frames in the sequence, subsequent to the last frame in the first portion, to the second portion, while the measure of similarity of the added frames to the representative frame is within a second predefined bound (Edgar, col. 4, lines 57-61; col. 8, lines 12-16); and

determining the first and second portions together to constitute the segment that is represented by the representative frame (Edgar, col. 5, lines 1-5).

Independent claims 12 and 23 are similar in scope to claim 1, and are therefore rejected under similar rationale.

As per claim 2, which is dependent on claim 1, Edgar teaches a method according to claim 1, wherein selecting the frame as the initial frame comprises selecting the first frame subsequent to a final frame in a preceding segment (Edgar, col. 5, lines 39-43).

Dependent claim 13 is similar in scope to claim 2, and is therefore rejected under similar rationale.

As per claim 3, which is dependent on claim 1, Edgar teaches a method according to claim 1, wherein adding the further frames comprises, for each of the added frames, computing at least one parameter indicative of a characteristic of the added frame, and wherein the measure of similarity comprises a distance measured between the parameters of the added frame and the frames already in the first portion (Edgar, col. 8, lines 12-16).

Dependent claim 14 is similar in scope to claim 3, and is therefore rejected under similar rationale.

As per claim 4, which is dependent on claim 3, Edgar teaches a method according to claim 3, wherein computing the at least one parameter comprises computing a vector of parameters, and wherein the distance comprises a vector distance (Edgar, col. 8, lines 12-16).

Dependent claim 15 is similar in scope to claim 4, and is therefore rejected under similar rationale.

As per claim 5, which is dependent on claim 3, Edgar teaches a method according to claim 3, wherein adding the further frames comprises finding a bounding subset of the frames in the first portion, and adding the further frames to the first portion while the distance between each of the added frames and the frames in the representative set is within the predefined bound (Edgar, col. 4, lines 57-61; col. 8, lines 12-16).

Dependent claim 16 is similar in scope to claim 5, and is therefore rejected under similar rationale.

As per claim 6, which is dependent on claim 5, Edgar further teaches a method according to claim 5, wherein finding the bounding subset comprises selecting the subset so as to maximize a sum of the distances between all of the frames in the subset (Edgar, col. 8, lines 55-62; Table 2; col. 9, lines 50-55).

Dependent claim 17 is similar in scope to claim 6, and is therefore rejected under similar rationale.

As per claim 7, which is dependent on claim 6, Edgar further teaches a method according to claim 6, wherein selecting the subset comprises determining the sum of the distances between one of the further frames added to the sequence and the frames in the bounding subset, and replacing one of the frames in the subset with the one of the further frames if replacing the one of the frames in the subset will increase the sum

of the distances between all of the frames in the subset (Edgar, col. 9, lines 56-67; col. 10, lines 50-67).

Dependent claim 18 is similar in scope to claim 7, and is therefore rejected under similar rationale.

As per claim 8, which is dependent on claim 1, Edgar teaches a method according to claim 1, wherein selecting the representative frame comprises selecting a final one of the frames added to the first portion to be the representative frame (Edgar, col. 4, lines 57-61).

Dependent claim 19 is similar in scope to claim 8, and is therefore rejected under similar rationale.

As per claim 9, which is dependent on claim 8, Edgar teaches a method according to claim 8, wherein the frame in the sequence following the representative frame is outside the first predefined bound of the frames in the first portion (Edgar, col. 5, lines 1-5).

Dependent claim 20 is similar in scope to claim 9, and is therefore rejected under similar rationale.

As per claim 10, which is dependent on claim 1, Edgar teaches a method according to claim 1, and comprising storing the sequence in an archive, and indexing the archive using the representative frame (Edgar, col. 5, lines 6-13).

Dependent claim 21 is similar in scope to claim 10, and is therefore rejected under similar rationale.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar.

As per claim 11, which is dependent on claim 1, Edgar fails to teach a method according to claim 1, and comprising compressing the sequence using the representative frame.

However, OFFICIAL NOTICE is given that compressing video data and using a representative frame, or thumbnail, is well known in the art. It would have been obvious to one skilled in the art at the time of invention to include the ability to compress the video data in the invention of Edgar because it would reduce the amount of space needed to provide for the program, therefore making it more efficient.

Dependent claim 22 is similar in scope to claim 11, and is therefore rejected under similar rationale.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rayner (US# 5,519,828) teaches a video editing operator interface for aligning timelines.

Rayner (US# 5,388,197) teaches a video editing system operator interface for visualization and interactive control of video material.

Mills et al. (US# 5,237,648) teaches an apparatus and method for editing a video recording by selecting and displaying video clips.

Coleman, Jr. (US# 5,767,923) teaches a method and system for detecting cuts in a video signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam M. Lewis whose telephone number is 703-305-0720. The examiner can normally be reached on M-Th 7:00-4:30, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L. Kincaid can be reached on 703-308-0640. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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